THE CONTRIBUTION OF SELF-DISCREPANCY IN THE RELATIONSHIP BETWEEN ROLE LOSS AND WELL-BEING IN OLDER ADULTS

A Dissertation

by

KYLIN HAEDGE LEE

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2010

Major Subject: Counseling Psychology

THE CONTRIBUTION OF SELF-DISCREPANCY IN THE RELATIONSHIP BETWEEN ROLE LOSS AND WELL-BEING IN OLDER ADULTS

A Dissertation

by

KYLIN HAEDGE LEE

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Approved by:

Chair of Committee,	Michael Duffy
Committee Members,	Timothy Elliott
	Arnold LeUnes
	Aaron Taylor
Head of Department,	Victor Willson

August 2010

Major Subject: Counseling Psychology

ABSTRACT

The Contribution of Self-discrepancy in the Relationship between Role Loss and Well-being in Older Adults. (August 2010)

Kylin Haedge Lee, M.S., B.A.; Texas A&M University

Chair of Advisory Committee: Dr. Michael Duffy

The purpose of the study is to investigate how older adults adjust to getting older and the losses that come with aging. This study examines how E.T. Higgins's theory of self-discrepancy mediates the relationship between role loss and subjective well-being. Subjective well-being (SWB) is defined as overall life satisfaction, the presence of positive affect and the absence of negative affect. This hypothesis, grounded in both self-discrepancy and life span developmental theory, is that the level of discrepancy between the actual and ideal self mediates the relationship between role losses and mental health.

This study examined three models with each investigating how self-discrepancy mediates the relationship between role loss and a different outcome variable for each model: positive affect, negative affect, and satisfaction with life. The sample consisted of adults over the age of 60 living in both community and institutional settings. Several path analyses models were run to examine the tenability of the hypotheses within the three models. This study did not support any of its hypotheses of the indirect and direct effects mediation models with the outcome variables of positive affect, negative affect and satisfaction with life scale. However, it did show support for the self-discrepancy

theory. Consistent with the theory, this study showed that those reporting more self-discrepancy reported less satisfaction with life, less positive affect, and more negative affect. This study also showed levels of SWB in non-clinical samples of older adults. This study supported the idea that more self-discrepancy is related to lower levels of SWB. This is important in a clinical setting to know for treatment of older adults suggesting that clinicians help their clients work towards less self-discrepancy and in turn, greater SWB.

ACKNOWLEDGEMENTS

I would like to thank my committee chair, Dr. Michael Duffy, and my committee members, Dr. Taylor, Dr. LeUnes, and Dr. Elliott for their guidance and support throughout the course of this research.

Thanks also go to my friends, colleagues and cohort who supported me through this process. Finally, thanks to my family for their encouragement and to my husband for his love and support.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

CHAPTER I

INTRODUCTION

Life expectancy in the United States is climbing and it is projected that by 2030 the over-65 population will be 70 million. At that time, one in five Americans will be an older adult (Federal Interagency Forum on Aging Related Statistics, 2004). Improvements in health care have increased the overall quality of life for many older adults. There is a narrowing gap between total life span and healthy life span, implying that people are living longer and better. However, with aging still comes transition, decline and loss (Hyer & Intrieri, 2006). With more and more older adults utilizing the health care and mental health care system, it is important to understand how these transitions, declines, and losses affect our older adults and in turn, how they adjust to the changes they experience.

From a transitional framework in viewing adults and aging, theorists argue that life events or transitions are more important than chronological age in understanding behavior (Schlossberg, 1984). One major life event that comes with aging is the role transition or role loss experienced by older adults as they retire, move into institutional living, experience altered relationships with adult children, or experience physical disabilities.

This dissertation follows the style of *The Counseling Psychologist*.

Several theorists state that adapting to this role transition is an important part in an older person's development and crucial to her well-being (Erikson 1968; Myers, 1999). Erikson (1968) discusses late life role transitions and the anxiety that can result when one's ideal self-image, which is still tied to various roles, is no longer congruent with one's actual self. In Erikson's (1968) stages of development, a person must reconcile these parts through a process of fresh self-definition in which a person develops a new ideal self image which is more congruent to her actual self. Carrying this idea further, and leaning on classic theories of cognitive dissonance (Festinger, 1957), E.Tory Higgins (1987) developed the theory of self-discrepancy. Higgins's (1987) theory of self-discrepancy posits that incongruence between one's actual self and one's ideal self image can impact different kinds of negative affect. The current study explores Higgins' (1987) theory of self-discrepancy in coping with role transition/loss experienced by older adults and exploring that adjustment related to one's subjective well-being.

Purpose of the Study

The purpose of the study is to investigate how self-discrepancy (Higgins, 1987) mediates the relationship between role loss and subjective well-being. Subjective well-being (SWB) is defined as overall life satisfaction, the presence of positive affect and the absence of negative affect (Diener, 1984). The theory of self-discrepancy posits that more discrepant self states are related to more negative affect (Higgins, 1987). The converse could also logically be assumed – that less discrepant self states are related to more positive affect (Heidrich & Ryff, 1993). Besides measuring overall life satisfaction, SWB picks up on both positive and negative affect, thus making it a

reasonable dependent variable for this study. This hypothesis, grounded in both self-discrepancy and life span developmental theory, is that the level of discrepancy between the actual and ideal self mediates the relationship between role losses and mental health.

CHAPTER II

LITERATURE REVIEW

Role Loss

Several authors discuss role loss experienced by older adults (Faria, 1983; Glantz, 1989; Kernberg, 1977; Myers, 1999; Roscow, 1973). While older adulthood has traditionally been thought of as a time of loss (Myers, 1999; Roscow, 1973), there is also a trend to focus on healthy aging (Myers, 1999). Healthy aging involves the adjustment to role losses experienced by older adults (Myers, 1999). Older adults typically experience loss and if these losses impact one or more role, then that older adult can experience significant role loss.

There can be a variety of losses experienced by an older adult. An older adult may experience sensory or physical loss which affects how she relates to and experiences the world around them. There is often a loss of perceived physical attractiveness, vitality, mobility, and stamina. These physical losses can result in withdrawal from family and friends, resulting in loss of relationships and social support. Relationships can also be lost or changed through retiring, moving, or death. Loss of a job through retirement or downsizing can mean loss of income, loss of social connections, and loss of meaningful use of time. Finally, losing one's home through retirement or relocation to institutional living often means going through an inventory of objects which have intense personal meaning and leaving many of those behind when downsizing. Relocation often means adjusting to a new lifestyle; the personal meaning

of one's home can impact psychological adjustment for an older adult in this transition (Myers, 1999).

Defining Role Loss. Role loss can be defined in many ways. Roscow (1973) described role loss as a loss of status. However, the concept utilized in this study rather views role as a set of behaviors. In her study, Faria (1983) explains the difference between defining role as a status or as a set of behaviors. A mother, whose children grow up and move away, does not lose the status of being a mother, but does lose the set of behaviors of mothering (Faria, 1983) It is the personal meaning attached to that role and associated set of behaviors, that when gone, are experienced as loss. With this concept in mind, role loss is defined as "the individual's perceived inability to engage in certain behaviors" (Faria, 1983, p. 29).

Coping with Role Loss. Several authors acknowledge a process of grieving that occurs with role loss (Bressler-Feiner, 1981; Myers, 1999). This grieving for the loss of role is thought to be an integrated part the process of role change (Schlossberg, 1984). Role change is a change in the perception and implementation of typical role performance (Turner, 1990). Adjusting to role loss requires developing a new sense of role involvement (Myers, 1999). Erikson (1968), however, talks about the anxiety caused by role loss as a result of the discrepancy between the real self-image and the ideal self-image. Resolution of this conflict depends on the ability to form a new idealized self that is closer to the real self-image. Erikson (1968) specifically holds that this ability depends on the presence of a healthy narcissism. The term healthy narcissism means that one likes oneself and that one can reach within to access other resources

needed to compensate for losses such as physical limitations and changing relationships (Bressler-Feiner, 1981). Myers (1999) adds to this concept using different terms; in order to successfully adjust an older adult must have adequate perceived social support, a sense of purpose and a perception of personal control (Myers, 1999).

Theory of Self Discrepancy

The theory of self-discrepancy holds that discrepancies between differing representations of the self are related to negative affect. Higgins (1987) proposed three domains of the self: actual, ideal, and ought from the standpoint of the self (by oneself or by significant others) that comprise each type of self representation. The actual self-state is defined as the self-concept. The ideal self-state is defined as "representations of an individual's beliefs about his or her own or significant other's hopes, wishes, or aspirations for the individual" (Higgins, 1987, p. 319). The ought self-state is defined as "representations of an individual's beliefs about his or her own or a significant other's beliefs about the individual's duties, responsibilities, or obligations" (Higgins, 1987, p. 319). The theory states that when these self representations are discrepant, then various degrees of negative affect are present. Discrepancies between the actual and ideal self-state result in the absence of positive outcomes and are associated with emotions like disappointment, dissatisfaction and sadness. Discrepancies between the actual and ought self-state result in the presence of negative outcomes which are associated with agitation-related emotions like fear, threat, or restlessness (Higgins, 1987). The present study will examine only the differences between the ideal and actual self-states. Some research indicates that older adults feel that they have already fulfilled their duties and

obligations (Francis, Boldero, & Sambell, 2006), so the ought self-state is not as salient for the older adult population. Self-discrepancy can be measured in a variety of ways. This current study will use two assessments to measure the construct of self-discrepancy: the Self-Lines Measure (Francis, Boldero, & Sambell, 2006) and the Self Discrepancy Scale (SDS; Heidrich, Forstohoff, & Ward, 1994).

Subjective Well-being

Researchers have found two broad components to subjective well-being (SWB): an affective component, which can be further broken into both positive affect and negative affect, and also a cognitive component, referred to as life satisfaction (Andrews & Withey, 1976; Pavot & Diener, 1993). Diener (1984) further explains that SWB has three hallmarks: 1) it is a subjective evaluation, 2) it is not only the absence of negative affect, but includes the presence of positive affect, and 3) it includes a global cognitive assessment of all aspects of a person's life. SWB is comprised of two separate parts, one affective and the other cognitive, but the two correlate at levels sufficient to indicate that they are part of a higher construct (Diener, 1984). In this study, Diener's (1984) definition of SWB is used. Diener (1984) writes:

> Subjective well-being refers to the global experience of positive reactions to one's life, and includes all of the lower-order components such as life satisfaction and hedonic level. Life satisfaction refers to a conscious global judgment of one's life. Hedonic level or balance refers to pleasantness minus unpleasantness of one's emotional life. (p. 108)

Since the construct of SWB is made up of two lower order constructs, it may be helpful to further define the elements that make up the whole.

Life Satisfaction. Life satisfaction is a judgment process, one that uses cognitive ability to evaluate the quality of one's life. More specifically, one internally compares one's perceived life circumstances with an ideal standard. The closer the perceived life circumstances match the self-imposed standard, the more satisfied a person is with his/her life (Pavot & Diener, 1993). In this study, life satisfaction will be measured by the Satisfaction With Life Scale (SWLS; Diener, Emmons, Larson, & Griffen, 1985).

Positive and negative affect. The affective element of SWB is comprised of both positive affect (PA) and negative affect (NA). PA and NA are not opposites – that is, they are two distinctive dimensions which are not necessarily correlated. High PA reflects a state of high energy, being active, alert, feeling enthusiastic, full of concentration and pleasurable engagement. Low PA reflects being sad and lethargic. Distinctly, high NA is characterized as subjective distress and unpleasurable engagement which could include anger, contempt, disgust, guilt, fear, or nervousness. In contrast, low NA refers to a state of calmness and serenity (Watson, Clark, & Tellegen, 1988).

Statement of the Problem

The purpose of the study is to investigate how self-discrepancy (Higgins, 1987) mediates the relationship between role loss and subjective well-being. Subjective well-being consists of both the presence of positive affect and the absence of negative affect, making it a pertinent dependent variable for this study (Diener, 1984). This hypothesis, grounded in both self-discrepancy and life span developmental theory, is that the level of

discrepancy between the actual and ideal self mediates the relationship between role losses and SWB.

Research Hypotheses

Individual research hypotheses examined in the context of a model of interrelationships as follows.

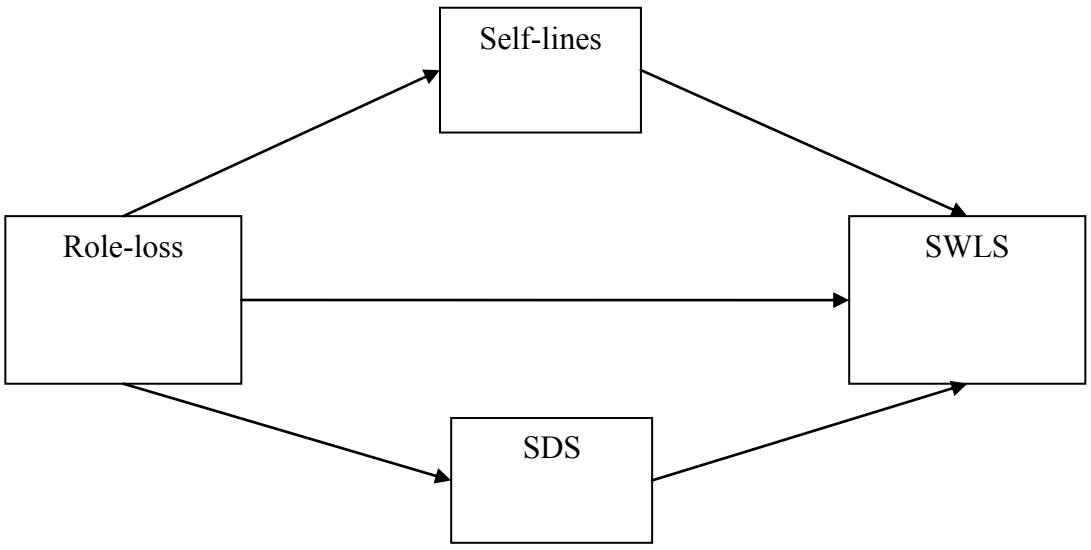

***Figure 1*. Path-analytic model: Influence of role-loss and self-discrepancy on satisfaction with life.**

Model 1 (DV is Satisfaction with life scale (SWLS)):

Hypothesis 1: There will be a significant negative relationship between role loss and SWLS. Higher reported role loss will be associated with lower SWLS.

Hypothesis 2: Self-discrepancy (as measured by the Self-Lines Measure and SDS) is expected to have a negative relationship with SWLS. Higher reported self-discrepancy is expected to result in lower SWLS.

Hypothesis 3: Role loss is expected to have a positive relationship with the SDS and Self-Lines. Older adults who report higher role loss will also report higher scores on the SDS and the Self-Lines Measure.

Hypothesis 4: Self-discrepancy will mediate the relationship between role loss and SWLS. Higher reported role loss will be associated with higher reported SDS and Self-Lines, which in turn will lead to lower reported SWLS.

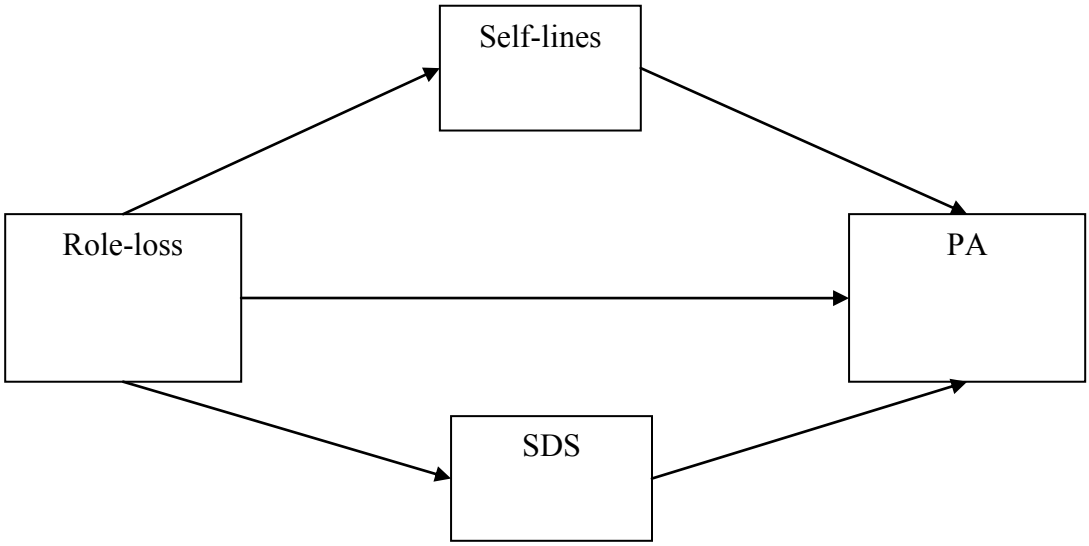

***Figure 2*. Path-analytic model: Influence of role-loss and self-discrepancy on positive affect.**

Model 2 (DV is PA):

Hypothesis 1: Role loss is expected to have a negative relationship with PA. The higher role loss an older adult reports is expected to result in lower PA.

Hypothesis 2: Self-discrepancy (as measured by the Self-Lines Measure and SDS) is expected to have a negative relationship with PA. Higher reported self-discrepancy is expected to result in lower PA.

Hypothesis 3: Role loss is expected to have a positive relationship with the SDS and Self-Lines. Older adults who report higher role loss will also report higher scores on the SDS and the Self-Lines Measure.

Hypothesis 4: Self-discrepancy will mediate the relationship between role loss and PA. Higher reported role loss will be associated with higher reported SDS and Self-Lines, which in turn will lead to lower reported PA.

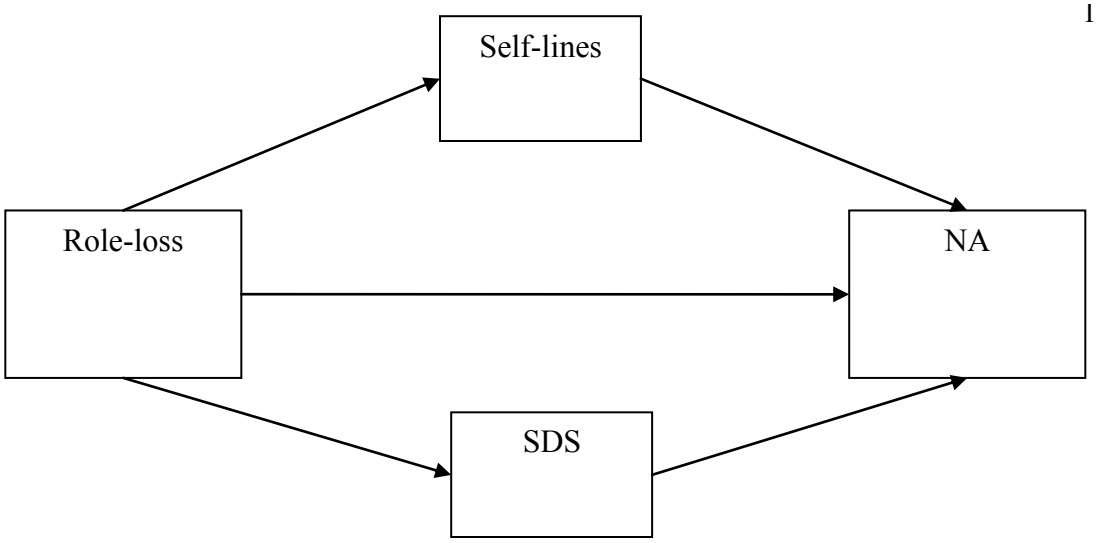

Figure 3. **Path-analytic model: Influence of role-loss and self-discrepancy on negative affect.**

Model 3 (DV is NA):

Hypothesis 1: Role loss is expected to have a positive relationship with NA. The higher role loss an older adult reports is expected to result in higher NA.

Hypothesis 2: Self-discrepancy (as measured by the Self-Lines Measure and SDS) is expected to have a positive relationship with NA. Higher reported self-discrepancy is expected to result in higher NA.

Hypothesis 3: There will be a significant, positive relationship between role loss and SDS and Self-Lines. Older adults who report higher role loss will also report higher scores on the SDS and the Self-Lines Measure.

Hypothesis 4: Self-discrepancy will mediate the relationship between role loss and NA. Higher reported role loss will be associated with higher reported scores on SDS and Self-Lines, which in turn will be associated with higher reported NA. Controlling for self-discrepancy will significantly reduce the relationship between role loss and NA.

CHAPTER III

METHODOLOGY

Participants

Participants in this study were adults over the age of 60 from both urban and rural settings in Texas. Participants were a gathered as a convenience sample from various institutional living settings ranging from assisted living settings to retirement homes. Community dwelling adults were also accessed through community organizations and religious institutions. Approximately 160 questionnaires were distributed, and 118 were returned. Of these, 18 (15%) returned blank questionnaires or had incomplete data. Therefore the final sample consisted of 100 participants.

Demographic information was, when possible, compared with national averages to determine the representativeness of this sample. There were 34 men (34%) and 66 women (66%) in the sample. This is close to the national average of older adults, 41.2% men and 58.8% women. The average age of the participants in this sample was 71.73 years (SD = 8.22), with a range of 60 to 98 years old. Participants were also similar to older adults in general in terms of marital status (67% were married, 26% were widowed, 1% was single, 5% were divorced, and 1% were living with a partner) with a slightly higher percentage being married in the sample (67% in the sample compared to 56% nationally), and slightly lower percentage being divorced (5% in the sample and 9.5% nationally). In the usable sample, 93% of the participants reported being community dwelling or living in private homes and 7% reported living in a retirement

community. Regarding race and ethnicity, 94% of the sample identified as White/Caucasian, 4% identified as African-American, 1% identified as Native American, and 1% identified as 'other.' This was slightly different than the national averages where 75.1% identify as non-Hispanic white, 12.3% identify as African-American, 0.9% as Native American, and 12.5% identify as Hispanic nationally (U.S. Census Bureau, 2000).

Measures

Role Checklist. The Role Checklist (Oakley, Kielhofner, Barris, & Reichler, 1986) was used to measure role loss by providing information on perception of participation of roles throughout the lifespan and the degree to which each role is valued. Estimates of kappa were used to measure reliability. Estimates of weighted kappa for each of the 10 roles ranged from .51 to .74, which is moderate to substantial strength in agreement for test-retest reliability. The test-retest reliability averages 87% for part 1 and 79% for part 2 (Burke & Lomba, 2005). Dickerson and Oakley (1995) reports small validity studies that show satisfactory results in which the Role Checklist was compared to a similar measure called the Activity Configuration (Cynkin & Robinson, 1990). The kappa statistic and percent agreement tests were used. The results ranged from moderate to substantial levels with percent agreement exceeding 80% (Manos, 1994 as cited in Dickerson & Oakley, 1995). Hallett (1994) writes that the Role Checklist appears to be face valid. While a minimum of reliability and validity studies have been conducted, the Role Checklist still remains a standard in the area of occupational role measurement (Burke & Lomba, 2005; Dickerson & Oakley, 1995).

Self-Lines Measure. This idiographic approach of measuring self-discrepancy is intended to capture concepts that subjects generate about themselves and will be achieved through the Self-Lines Measure by Francis et al. (2006). The idiographic approach is important, as self-discrepancy theory is based on the idea that personally important attributes are more cognitively accessible and that only these accessible attributes influence emotions (Higgins, King, & Mavin, 1982). Other self-discrepancy measures provide a checklist of attributes, but this violates a central aspect of the theory of self-discrepancy; reading the attributes constitutes a cognitive priming process which could make certain attributes artificially salient. In the Self-Lines measure, subjects think of five attributes for their ideal self. In this way, the Self-Lines measure idiographically elicits salient attributes. On the next sheet, participants write the first attribute at the top of a line and its opposite at the bottom. The subject than marks the line where they believe they are right now (labeled A for actual) and where their ideal would be (labeled I for ideal). This process is repeated for the next four attributes. The Self-Lines is scored by measuring the line between the marks and computing the mean of the lengths for the five attributes. In a pilot study by Francis et al., (2006), actual-ideal (AI) and actual-ought (AO) scores were only moderately correlated ($r = .31$), indicating reasonable discriminant validity. Also, AI scores were uniquely correlated to scores on a 12-minute walk test ($r = -.46$, $p < .05$), but AO scores were not. The authors expected a negative correlation between poor physical performance and wishes or expectations (the ideal self), but not with perceived duties or obligations (the ought self) (Francis et al., 2006).

The authors compared the Self-Lines measure with the Selves Questionnaire (SQ; Higgins, Klein, & Straumann, 1985), another measure of self-discrepancy. They found that participants reported small AI and AO self-discrepancies on the SQ (AI: M = .44, *SD* = 2.84; AO: *M* = -.44, *SD* = 2.72) and moderate AI and AO self-discrepancies on the Self-Lines measure (AI: *M* =3.17; *SD* =1.13; AO: *M* = 3.21, *SD* = 1.14). The two measures were moderately correlated with AI: $r(80) = .38$, $p < .001$ and AO: $r(80) = .41$, $p < .001$. The Self-Lines measure has more variance than other similar measures and is consistent with the underpinnings of the theory of self-discrepancy (Francis et al., 2006).

Self-Discrepancy Scale (SDS). The SDS will provide the nomothetic approach to measure self -discrepancy (Heidrich, Forsthoff, & Ward, 1994). This 20-item self-report measure has been used to measure self-discrepancy as a moderator variable with mental health in older adults. Participants read a description and example of an actual self, an ideal self, and a match between the two. They are then asked to reply on a 6-point scale (strongly agree to strongly disagree) with the statement "My actual self and ideal self are a very close match in…" then there is a list of twenty life domains such as "my physical health," "coping with change," and "pursuing leisure interests and hobbies." The measure has a Cronbach's alpha of .92. Construct validity was tested by examining correlations between the SDS and a measure of self-esteem (Rosenberg, 1986). An inverse correlation was expected and the hypothesis was supported with an $r = -.44$, $p < .01$ (Heidrich et al., 1994).

Satisfaction With Life Scale. SWB consists of two parts: a cognitive evaluation of life satisfaction and an affective component of positive and negative affect (Pavot &

Diener, 1994). The Satisfaction With Life Scale (SWLS) measures global life satisfaction and does not tap into any affective component. In terms of reliability, Diener et al. (1985) reports a coefficient alpha of .87 for the scale and a test-retest stability coefficient of .82. Pavot and Diener (1994) provide initial validity evidence by reporting that abused women, psychiatric patients, prisoners, and students in poor and turbulent countries had the lowest scores on the SWLS. The SWLS has also been examined in relation to both self-report and external measures of life satisfaction. The modest to moderate correlations (ranging from .28 to .82; see Pavot & Diener, 1994) show adequate validity, although they reflect error in other measures. Researchers also correlated the SWLS with clinical measures of distress and have found strong negative correlations. For example, when correlating the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) with the SWLS, (Blais, Vallerand, Pelletier, & Briere, 1989) reported an r -.72, p = .001. Larson, Diener, and Emmons (1985) also correlated the SWLS with a measure of negative affect and found an r of -.31.

Positive and Negative Affective Schedule. The affective component of SWB is measured with the Positive and Negative Affective Schedule (PANAS)(Watson et al., 1988). The PANAS consists of 20 adjectives describing different feelings and emotions. Participants are asked to indicate to what extent they have felt each emotion in the past few days, weeks, etc. The administrator is allowed to choose from the following time frames: moment, today, past few days, week, past few weeks, year, or in general. The PANAS scale alpha reliabilities range from .86 to .90 for the PA and from .84 to .87 for the NA, regardless of time period selected, demonstrating that the reliability of the

instrument is unaffected by the time instructions used. The correlation between NA and PA is low, ranging from -.12 to -.23, demonstrating that the two share only a small amount of variance and are relatively independent of each other. Test-retest reliability was assessed by giving the PANAS to 101 undergraduates for each of the seven time frames on two occasions. There were no significant differences found ($p < .05$, 2-tailed t test) (Watson et al., 1988).

The convergent validity correlations ranged from .89 to .95 and the discriminant correlations were low, ranging from -.02 to-.18. To demonstrate item validity, Watson et al. (1988) factored participants' ratings on the PANAS and found that the two dimensions (PA and NA) accounted for almost all the common variance (between 87.4% and 96.1%). All the descriptors have primary factor loadings of .50 or above on the appropriate factor. In terms of external validity, the PANAS shows appropriate correlations with the Hopkins Symptom Checklist (HSCL)(Derogatis, Lipman, Rickels, Uhlenhuth, & Covi, 1974), the Beck Depression Inventory (BDI)(Beck et al., 1961), and the State-Trait Anxiety Inventory State Anxiety Scale (A-State)(Spielberger, Gorsuch, & Lushene, 1970) (Watson et al., 1988). For this study, the participants were asked to indicate to what extent they felt each emotion for the past week.

Demographic Questionnaire. A brief demographic questionnaire developed by the author is included to gather information about gender, age, race and ethnic identity, place of residence, length of time in residence, and marital status.

Procedures

Paper-and-pencil questionnaires were handed out to individuals both in group and individual settings. The investigator was available to answer questions for clarification. The investigator provided an option for oral administration, but no participants volunteered for such administration. Time for completion of the questionnaire was approximately 1 hour.

CHAPTER IV

RESULTS

Several path analysis models were estimated to evaluate the tenability of mediation models whereby the direct effects of role loss on indicators of subjective well-being are transmitted through self-discrepancy. Three path analytic models were run, each with a different outcome variable (SWLS, PA, and NA). The first path analytic model consisted of four hypotheses: (1) there will be a significant negative relationship between role loss and SWLS, (2) self-discrepancy is expected to have a negative relationship with SWLS, (3) role loss is expected to have a positive relationship with the SDS and Self-Lines, (4) self-discrepancy will mediate the relationship between role loss and SWLS.

The next model also included hypotheses in order to examine the mediating roles of self-discrepancy. The hypotheses were (1) role loss is expected to have a negative relationship with PA, (2) self-discrepancy is expected to have a negative relationship with PA, (3) role loss is expected to have a positive relationship with the SDS and Self-Lines, (4) self-discrepancy will mediate the relationship between role loss and PA. Lastly, the third path analytic model examined the relationship between the variables with outcome variable NA. The hypotheses were (1) role loss is expected to have a positive relationship with NA, (2) self-discrepancy is expected to have a positive relationship with NA, (3) there will be a significant, positive relationship between role

loss and SDS and Self-Lines, (4) self-discrepancy will mediate the relationship between role loss and NA.

These models were estimated with the EQS 6.1 software package, with the two mediators (SDS and Self-Lines) being regressed on the independent variable (role loss), and the regression of each dependent variable (SWLS, PA, and NA) on the two mediators. There was also a direct path from the independent variable (role loss) to the dependent variable. The test of the indirect effect was performed through the bootstrapping method using SPSS 17.0 for Windows and a macro designed for multiple mediation (Preacher & Hayes, 2008). Recent studies have found that the bootstrapping method is a more accurate and powerful method to examine mediation in terms of measuring an indirect effect than the Sobel test when data is skewed and the sample size is less than 400 (see Preacher & Hayes, 2004; Shrout & Bolger, 2002). This fits for the current study because the data were not normally distributed and the sample size was less than 400, therefore the Satorra-Bentler correction (S-B) with maximum likelihood estimation was used in EQS to estimate the path analytic models as well as bootstrapping methods to quantify the indirect effect.

Descriptive and Correlation Analyses

The sample of 100 consisted of 34 men (34%) and 66 (66%) women. The average age of the participants in this sample was 71.73 years (*SD* = 8.22) with a range of 60 to 98 years old. Most of the participants were married (67%) and most reported being community dwelling (93%). Regarding race and ethnicity, 94% of the sample

identified as white/Caucasian, 4% identified as African-American, 1% identified as Native American, and 1% identified as 'other.'

Table 1.

Descriptive data of constructs

	PA	NA	SWLS	Self-Lines	Role Loss	SDS
N	100	100	100	100	100	100
Mean	35.33	15.53	26.91	-9.43	1.58	4.8
Std. Deviation	6.44	4.85	5.48	5.72	.96	.6
Possible Range	10-50	10-50	5-35	-49 - 49	0 - 11	0 - 6
Observed Range	17-50	10-30	10-35	-24.5 – 1.15	0.14 - 8	3.45 – 6

Means and standard deviations for the study variables are presented in Table 1. The relations among the study variables were first examined using Pearson correlations. T-test analyses were used to examine any possible gender differences within the sample. However, results indicated no significant gender differences in males' and females' reports of the outcome variables, PA, NA or SWLS. (In a *t*-test for equality of means, assuming the variances are equal, results were: PA: $t = -1.155$, $p = .251$, NA: $t = 1.621$, $p = .108$, SWLS: $t = -1.351$, $p = .180$). Based on the general lack of gender differences in the primary study variables, data for males and females were pooled. The following results are based on pooled data. A series of Pearson correlations were run to look for any associations among primary variables. As expected (Diener, 1984), there were associations found among the variables that make up the construct Subjective Well-

Being (SWB): PA, NA, and SWLS. PA and NA were significantly correlated at the .05 level, r = -.243. PA was also significantly correlated with SLWS at the .01 level, r = .313. Lastly, NA was significantly correlated with SWLS at the .01 level, r = -.499. The only other significant correlation was found between NA and Self-Lines (r = -.538).

Table 2.

Correlations among study variables (N = 100)

	1	2	3	4	5	6
1. PA	1.00	-.243	.313	.133	-.154	.049
2. NA	--	1.00	-.499	-.538	-.009	.058
3. SWLS	--	--	1.00	.347	-.111	.005
4. Self-Lines	--	--	--	1.00	–.090	–-.048
5. Role loss	--	--	--	--	–1.00	.023
6. SDS	--	--	--	--	--	1.00

The authors for the PANAS (Watson et al., 1988) do not provide qualitative descriptors for various score ranges of PA or NA. The total possible range for PA is 10 – 50, in which the greater number represents more positive affect. The observed range for this sample was 17 – 50, with an average of 35.33, and standard deviation of 6.45. Seventy-two percent of the scores reported fell between 30 and 41, indicating that most participants reported the presence of a great deal positive affect in the last week. This is slightly higher than other studies in which researchers found older adults scored an average of 31.9 and 33.1 (Gagliardi, Marcellini, Papa, Giuli, & Mollenkopf, 2010). The

total possible range for NA is 10 – 50, in which the greater number represents more negative affect. The observed range for this sample was 10 – 30, with an average of 15.53, and standard deviation of 4.85. Notably, participants reported much lower levels of negative affect than positive affect. Forty-eight percent of the scores reported fell between 10 and 14, indicating that almost all participants reported the absence of negative affect in the last week.

SWLS measures global life satisfaction and does not tap into any affective component (Pavot & Diener, 1993). The range for SWLS is 5 – 35, in which 5 represents being the least satisfied and 35 represents being the most satisfied. The observed range in this sample was 10 – 25, with an average of 26.91 and standard deviation of 5.48. 51% of the scores fell between 24 and 30. This is slightly higher than normative data provided by Pavot and Diener (1993) in which they reported older adults scoring an average of 23.6 and 24.2 in two different studies.

The Self-Lines Measure (Francis et al., 2006) assesses discrepancy by computing the difference between self-reported scores of actual and ideal levels of various adjectives. The scores could range from -49 to 49, but the observed scores in this sample ranged from -24.5 – 1.15 (mean = - 9.23, SD = 5.72). For the Self-Lines Measure, zero would indicate a participant reporting no self-discrepancy, whereas the scores farther away from zero indicate a larger reported self-discrepancy.

Mediational Analyses

The direct effect was assessed using a regression coefficient and z-test. One thousand bootstrap replications were performed to create a bootstrap sample for

estimating the indirect effect of mediation analysis. The indirect effect was assessed with a 95% confidence interval (CI) of the indirect effect in the empirical sampling distribution. When a 95% confidence interval includes 0, then the indirect effect will not be significant. The correlation between the mediators (SDS and Self-Lines) was estimated and the residual correlation was not significant ($r = .051$, $p > .05$) in any of the models.

Model 1. In the first model, SWLS was the outcome variable and the relationship between role loss, self-discrepancy (as measured by the Self-Lines measure and the SDS), and SWLS was examined. The relationship between role loss and SWLS was examined. Role loss did not predict lower scores on their SWLS ($ß = -.151$, $t = -1.772$, $p > .05$). In addition, role loss did not predict greater self-discrepancy using the mediator Self-lines measure ($ß = .094$, $t = 1.365$, $p > .05$) nor the SDS ($ß = .024$, $t = .753$, $p > .05$). In examining the relationship between SWLS and SDS, there was no significant relationship found ($ß = .026$, $t = .781$, $p > .05$). However, participants' level of self-discrepancy when looking at the Self-Lines measure was significantly related to their SWLS, meaning participants with greater self-discrepancy reported less satisfaction with life ($ß = .361$, $t = 4.084$, $p < .05$). Since a relationship between the IV, role loss and the mediator, self-discrepancy, was not found evidence of a mediation effect was untenable. Specifically, the overall total indirect effect for model 1 was not significant since the 95% confidence interval (CI) for the indirect effect ([-.17, .87]) contained zero. Further, the measure of Self-Lines (the 95% CI of the indirect effect = [-.002, .85]) nor the Self-

Discrepancy Scale (the 95% CI of the indirect effect = [-.14, .56]) were significant since the CIs contained zero. Thus, neither mediation nor partial mediation was supported.

Model 2. In the second model, the outcome variable PA was examined along with its relationships with the other variables. The relationship between role loss and PA was examined. Participants with greater role loss did report lower PA scores (*ß* = -.176, *t* = -1.998, $p < .05$). Participants' level of self-discrepancy when looking at the Self-Lines measure was not significantly related to their PA, meaning participants with greater self-discrepancy did not significantly impact their reported positive affect (*ß* = -.151, *t* = -1.376, $p > .05$). However, participants' level of self-discrepancy when measured by the SDS showed a significant relationship between PA and SDS (*ß* = .06, *t* = 2.685, $p < .05$), meaning that reported positive affect and reported level of self-discrepancy on the SDS were positively and significantly related. Since a relationship between the IV, role loss and the mediator, self-discrepancy was not found, evidence of a mediation effect was untenable. Specifically, the overall total indirect effect for model 2 since the 95% confidence interval (CI) for the indirect effect ([-.08, .89]) contained zero. Further, neither the measure of Self-Lines (the 95% CI of the indirect effect = [-.86, .16]) nor the Self-Discrepancy Scale (the 95% CI of the indirect effect = [-.52, .04]) were significant since the CIs contained zero. Thus, neither mediation nor partial mediation was supported.

Model 3. In the third model, NA was the outcome variable and the relationship between role loss, self-discrepancy (as measured by the Self-Lines measure and the SDS), and NA was examined. The relationship between role loss and NA was examined.

Participants with greater role loss did not report lower scores on their NA (*ß* = .041, *t* = .387, *p* > .05). Participants' level of self-discrepancy when looking at the Self-Lines measure was significantly related to their NA, meaning participants with greater self-discrepancy reported more negative affect (*ß* = -.540, *t* = -5.664, *p* < .001). Participants' level of self-discrepancy when measured by SDS was not significantly related to their NA (*ß* = .031, *t* = 1.249, *p* > .05). Since a relationship between the IV, role loss and the mediator, self-discrepancy, was not found evidence of a mediation effect was untenable. Specifically, the overall total indirect effect for model 3 was not significant since the 95% confidence interval (CI) for the indirect effect ([-1.34, .19]) contained zero. Further, the measure of Self-Lines (the 95% CI of the indirect effect = [-.86, .16]) nor the Self-Discrepancy Scale (the 95% CI of the indirect effect = [-.52, .04]) were significant since the CIs contained zero. Thus, neither mediation nor partial mediation was supported.

.

CHAPTER V

DISCUSSION AND CONCLUSION

Major Findings

This study examined the relationship between role loss, the theory of self-discrepancy (Higgins, 1987) and subjective well-being (Diener, 1984). More specifically, this study investigated how self-discrepancy (Higgins, 1987) mediated the relationship between role loss and subjective well-being as measured by positive affect (PA), negative affect (NA), and the satisfaction with life scale (SWLS; Diener, 1984). Three models were examined in which self-discrepancy mediated the relationship between role loss and three different outcome variables: PA, NA, and SWLS.

The three outcome variables, PA, NA and SWLS, make up the higher-order construct subjective well-being (SWB). These variables comprise both the affective (PA and NA) and the cognitive (SWLS) parts of SWB. This sample was consistent with past research (Diener, 1984) showing that the affective and cognitive parts correlate at levels sufficient to indicate that they are part of a higher construct. This sample showed associations among the variables PA, NA, and SWLS. PA and NA were significantly correlated at the .05 level, $r = -.243$. This is similar to correlations (ranging from -.12 to -.23) between the NA and PA scales when they were developed by Watson, Clark, and Tellegen (1988). These discriminant values indicate that rather than being opposites and highly negatively correlated, PA and NA are in fact semi-independent, but related constructs. The results on the PANAS scales from the present study are similar to past

research conducted with them (Watson, Clark, & Tellegen, 1988). The PA scale was also significantly correlated with SWLS at the .01 level, r = .313. Lastly, NA was significantly correlated with SWLS at the .01 level, r = -.499. These correlations were expected according to past research with SWB (Diener, 1984; Pavot & Diener, 1993), which indicates that the affective (PA and NA scales) and cognitive (SWLS) components of SWB are not completely independent.

The central hypotheses in this study were that self-discrepancy as measured by two mediators (self lines and SDS), would partially mediate the relationship between role loss and three different outcome variables. Three models were run which measured both the indirect and direct effects of role loss on SWLS, PA, and NA. The first model consisted of three hypotheses: (1) there will be a significant negative relationship between role loss and SWLS, (2) self-discrepancy is expected to have a negative relationship with SWLS, (3) role loss is expected to have a positive relationship with the SDS and Self-Lines, (4) self-discrepancy will mediate the relationship between role loss and SWLS.

The second model was also an indirect and direct effects mediation model consisting of three hypotheses. The hypotheses were (1) role loss is expected to have a negative relationship with PA, (2) self-discrepancy is expected to have a negative relationship with PA, (3) role loss is expected to have a positive relationship with the SDS and Self-Lines, (4) self-discrepancy will mediate the relationship between role loss and PA. Lastly, the third model examined the relationship between the variables with outcome variable NA. The hypotheses were (1) role loss is expected to have a positive

relationship with NA, (2) self-discrepancy is expected to have a positive relationship with NA, (3) there will be a significant, positive relationship between role loss and SDS and Self-Lines, (4) self-discrepancy will mediate the relationship between role loss and NA.

The regression of the two mediators was estimated on the variable role loss, and the regression of the outcome variable (PA, NA and SWLS) was estimated on the two mediators. There was also a direct path included between role loss and PA, NA and SWLS, respectively. The results did not support partial mediation for any of the three models. Role loss was not significantly correlated with either of the mediators, i.e. the Self-Lines measure or SDS. There were some significant correlations found between the mediator Self-Lines and two of the outcome variables. Self-Lines was significantly related to SWLS ($ß = .361$, $t = 4.084$, $p < .05$), meaning participants' level of self-discrepancy when measured by the Self-Lines assessment was significantly related to their SWLS, indicating that participants with greater self-discrepancy reported less satisfaction with life. Participants' level of self-discrepancy when measured by the Self-Lines assessment was significantly related to their NA ($ß = -.540$, $t = -5.664$, $p < .05$), meaning participants with greater self-discrepancy reported more negative affect.

The other two significant relationships occurred within Model 2, which examined the relationships between the independent variables (role loss, Self-Lines, and SDS) and the outcome variable PA. PA was found to be negatively correlated with role loss ($B = -.176$, $t = -1.998$, $p < .05$). This means that lower reported role loss was related to higher reported PA . This makes sense and is consistent with hypothesis 1 of model 2: There

will be a significant negative relationship between role loss and PA. It makes sense that role loss that occurs through the aging process would lead to lower levels of PA, meaning participants who reported greater role loss would report lower levels of PA. PA was also significantly related to SDS ($B = -.06$, $t = -2.685$, $p < .05$). This again makes sense theoretically and lends support to the theory of self-discrepancy. The theory of self-discrepancy posits that the presence self-discrepancy is related to negative affect. The converse could also logically be assumed (Heidrich & Ryff, 1993), that those reporting less self-discrepancy would report higher levels of PA – which was the result in the current sample.

Clinical implications from this research would suggest that working towards decreasing an older adult client's self-discrepancy would lead to more positive affect and great satisfaction with life. In clinical settings, it might be important to work on acceptance and strengths as a means to decrease the gap between the ideal self and the actual self. By working towards changing expectations of the ideal self, a client and clinician could work towards moving the ideal self closer to the actual self, and as this research suggests, in turn moving towards more positive affect, less negative affect, and more satisfaction with life.

Directions for further research. Correlations were found between the measures of self-discrepancy and SWB. This lends support to the theory of self-discrepancy and its usefulness among the older population. The theory of self-discrepancy states that different discrepancies between representations of the self are related to a variety of negative affect (Higgins, 1987). This study lends support to the theory in that greater

levels of self-discrepancy were related to less satisfaction with life, less positive affect and more negative affect. The question of how older adults adjust seemingly so well to role loss has yet to be answered, and this study does show support for the theory of self-discrepancy as a way of coping. Further research needs to be conducted looking at the applicability of the theory of self-discrepancy with other populations.

Limitations. There are some limitations of the present study that must be acknowledged. First, findings from the present study are based exclusively on self-report data. Since the attributes subjective well-being and role loss were reported and determined by older adults', a portion of the variance of the scores may be due to the idiosyncratic differences in which participants responded to the questionnaire. Another limitation that may affect the generalizability of these results is the lack of diversity within the sample. Although great efforts were made to collect a sample from older adults that reflected the population of the United States of America, most participants of the sample were White and married. The sample was also collected from mostly southern United States. With these factors in mind, the results may not be as generalizable to other ethnic or geographical groups.

Lastly, there was a bias in the sample towards those adults who were relatively well-adjusted. It makes sense that older adults who feel generally good about their life would be more willing to fill out a 45-minute questionnaire asking them to examine different aspects of their life. The results from the outcome measures looking at SWB showed that most adults who responded felt good about their lives, reported minimal negative affect and a fair amount of positive affect. This restriction of range for the

outcome data may have affected the correlation of the coefficients (Reynolds, Livingston, & Willson, 2006).

Conclusion

The results from this study showed some support for the theory of self-discrepancy, especially regarding adjustment in the older adult population. Results from this study indicated that, as the theory posited, those with more self-discrepancy reported lower levels of satisfaction with life and positive affect, and higher levels of negative affect. This study did not lend any support to the hypothesis that self-discrepancy mediates the relationship between role loss and subjective well-being. There are many possible explanations for this. First, the construct of role loss as measured by the Role Checklist (Oakley et al., 1986) only significantly correlated with PA, meaning that those who reported greater role loss reported less PA. While this makes sense according to life span developmental theory and role theory, role loss as currently measured did not correlate with any other variable. It might be that another way to measure role loss would have been to assess losses in specific areas, like physical decline, relationship loss, or employment loss. By using other measures of role loss, there might have been more of a relationship between role loss, self-discrepancy and SWB. The insignificant results could also have been a result of the lack of variability in the sample. This restricted range of variability may have affected the reliability coefficients and because reliability in sets the upper limits for correlations, the restricted range may have led to lower correlations among study variables (Reynolds, Livingston, & Willson, 2006).

This study did not support any of its hypotheses of the indirect and direct effects mediation models with the outcome variables of PA, NA and SWLS. However, it did show support for the self-discrepancy theory. Consistent with the theory, this study showed that those reporting more self-discrepancy reported less satisfaction with life, less PA, and more NA. Future research could lend further support for the use of self-discrepancy as a potential theory of adjustment for older adults.

REFERENCES

Andrews, F. M., & Withey, S. B. (1976). *Social indicators of well-being: America's perception of life-quality*. New York: Plenum Press.

Beck, A., Ward, C., Mendelson, M., Mock, J, & Erbaugh, J. (1961) An inventory for measuring depression. *Archives of General Psychiatry, 4*, 561-571.

Blais, M., Valleran, R., Pelletier, L., & Briere, N., (1989). EEchelle de satisfaction de vie: Validation Canadienne-Francaise do "Satisfaction With Life Scale" [French-Canadian Validation of Satisfaction With Life Scale]. *Canadian Journal of Behavioral Science, 21*, 210-223.

Bressler-Feiner, M. (1981). Narcissism and role loss in older adults. *Journal of Geriatric Psychiatry, 14*, 91-109.

Burke, J. P., & Lomba, T. B. (2005). Measurement of occupational role. In M. Law, C. Baum, & W. Dunn (Eds.), *Measuring occupational performance: Supporting best practice in occupational therapy* (pp. 276-285). Thorofare, NJ: Slack Incorporated.

Cynkin, S. & Robinson, A. M. (1990). *Occupational therapy and activities: Health toward health through activities.* Boston: Little Brown.

Derogatis, L.R., Lipman, R., Rickles, K., Uhlenhuth, E., & Covi, L. (1974). The Hopkins Symptoms Checklist (HSCL): A self-report symptoms inventory. *Behavioral Science, 19*, 1-15.

Dickerson, A. E. & Oakley, F. (1995). Comparing the roles of community-living persons and patient populations. *American Journal of Occupational Therapy,* 49, 221-288.

Diener, E. (1984). Subjective well-being. *Psychological Bulletin, 95*, 542-575.

Diener, E., Emmons, R. A., Larson, R. J., & Griffen, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment, 49,* 71-75.

Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: W. W. Norton & Company Inc.

Faria, G. (1983). Toward a clarification of role loss. *Social Casework, 64,* 26-32.

Federal Interagency Forum on Aging Related Statistics. (2004). *Older Americans 2004: Key indicators of well being.* Washington, DC: U.S. Government Printing Office.

Festinger, L. (1957). *A theory of cognitive dissonance.* Stanford, CA: Stanford University Press.

Francis, J., Boldero, J., & Sambell, N. L. (2006). Self-lines: A new, psychometrically sound, 'user-friendly' idiographic technique for assessing self-discrepancies. *Cognitive Therapy and Research, 30,* 69-84.

Gagliardi, C., Marcellini, F., Papa, R., Giuli, C., & Mollenkopf, H. (2010). Associations of personal and mobility resources with subjective well-being among older adults in Italy and Germany. *Archives of Gerontology and Geriatrics, 50*, 42 – 27.

Glantz, M. (1989). Cognitive therapy with the elderly. In A. Freeman., K. M. Simon, L. E. Beutler, & H. Arkowitz (Eds.), *Comprehensive handbook of cognitive therapy* (pp. 467-489). New York: Pelnam Press.

Hallett, J. (1994). Role change after traumatic brain injury in adults. *The American Journal of Occupational Therapy, 48*, 241-246.

Heidrich, S. M., Forsthoff, C. A., & Ward, S., E. (1994). Psychological adjustment in adults with cancer: The self as mediator. *Health Psychology, 13,* 346-353.

Heidrich, S. M. & Ryff, C. D. (1993). Physical and mental health in later life: The self-system as mediator. *Psychology and Aging, 8,* 327-328.

Higgins, E. T. (1987). Self-discrepancy: A theory relating self and affect. *Psychological Review, 94,* 319-340.

Higgins, E. T., Klein, R., & Straumann, T. (1985). Self-concept discrepancy theory: A psychological model for distinguishing among different aspects of depression and anxiety. *Social Cognition, 3,* 51-76.

Higgins, E.T., King, G., & Mavin, G. (1982). Individual construct accessibility and subjective impressions and recall. *Journal of Personality and Social Psychology, 43*, 35-47.

Hyer, L & Intrieri, R. (2006). Perspective on long-term care. In L. A. Hyer & R. C. Intrieri (Eds.), *Geropsychological interventions in long-term care* (pp. 3-35). New York: Springer.

Kernberg, O. (1977). Boundaries and structure in love relations. *Journal of the American Psychoanalytic Association, 25,* 81-114.

Larson, R., Diener, R., & Emmons, R. (1985). An evaluation of subjective well-being measures. *Social Indicators Research, 17*, 1-18.

Manos, C. (1994). *Reliability and concurrent validity of the role checklist.* Unpublished master's thesis, Florida International University, Miami, FL.

Myers, J. (1999). Adjusting to role loss and leisure in later life. In M. Duffy (Ed.), *Handbook of counseling and psychotherapy with older adults* (pp. 41-56). New York: John Wiley & Sons, Inc.

Oakley, F., Kielhofner, G., Barris, R., & Reicher, R. K. (1986). The role checklist: Development and empirical assessment of reliability. *The Occupational Therapy Journal of Research, 6* 157-170.

Pavot, W. & Diener, E. (1994). Review of the satisfaction with life scale. *Psychological Assessment, 5,* 164-172

Preacher, K. J. & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods, 40,* 879-891.

Preacher, K. J. & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavioral Research Methods, Instruments, and Computers, 36*, 717-731.

Reynolds, C. R., Livingston, R. B., & Willson, V. (2006). *Measurement and assessment in education*. Boston: Allyn and Bacon.

Roscow, I. (1973). The social context of the aging self. *The Gerontologist, 13,* 82-87.

Rosenberg, M. (1986). *Conceiving the self.* Malabar, FL: Krieger.

Schlossberg, N. (1984). Exploring the adult years. In A. M. Rogers & C. J. Scheirer (Eds.), *The G. Stanley Hall Lecture Series, Volume 4* (pp. 105-154). Washington, DC: American Psychological Association.

Shrout, P.E. & Bolger, N. (2002). Mediation in experimental and nonexperimental studies; new procedures and recommendations. *Psychological Methods, 7*, 422-445.

Spielberger, C., Gorsuch, R., & Lushene, R. (1970). *Manual for State-Trait Anxiety Inventory.* Palo Alto, CA. Consulting Psychologists Press.

Turner, R. (1990). Role change. *Annual Review of Sociology, 16,* 87-110.

U.S. Census Bureau. (2000). Profile of general demographic characteristics 2000. Washington, DC: Government Printing Office.

Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54,* 1063-1070.

VITA

Kylin Haedge Lee received her Bachelor of Arts degree in behavioral science from Concordia University at Austin in 2004. She entered the Counseling Psychology doctoral program at Texas A&M University in September 2005, received her Master of Science degree in Educational Psychology in May 2007 and graduated with her Ph.D. in August 2010. She is currently a pre-doctoral intern at Colorado State University Health Network. Her research interests include older adults and adjustment. Her clinical interests include trauma, sexual assault and abuse, interpersonal process, adjustment and supervision.

Dr. Lee may be reached at Department of Educational Psychology; College of Education and Human Development; 704 Harrington Tower; MS 4225; College Station, TX 77843-4225; c/o Michael Duffy. Her email is: lee.kylin@yahoo.com